

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 G01C21/36 B60R16/02 G10L15/26 G10L15/22

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 G10L G01C B60R

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, PAJ, WPI Data, INSPEC

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	<p>US 6 542 868 B1 (BADT ET AL.) 1 April 2003 (2003-04-01) abstract column 1, line 16 - line 34 column 1, line 46 - line 60 column 1, line 63 - column 2, line 11 column 4, line 2 - line 15 column 4, line 30 - line 39 column 5, line 51 - line 66 column 6, line 5 - line 39 figure 3</p> <p style="text-align: center;">----- -/--</p>	1-17

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

*** Special categories of cited documents :**

- *A* document defining the general state of the art which is not considered to be of particular relevance
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Date of the actual completion of the international search

24 August 2004

Date of mailing of the international search report

06/09/2004

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 99/28145 A (AUSTRALIAN ARROW PTY LTD ;JAMES CAMPBELL RICHARD (AU)) 10 June 1999 (1999-06-10) abstract page 3, line 15 - line 21 page 3, line 29 - page 4, line 2 page 5, line 26 - page 6, line 2 claims 1,6,9,12	1-4, 9-13,17
X	US 6 208 932 B1 (OHMURA ET AL) 27 March 2001 (2001-03-27) abstract column 1, line 4 - line 18 column 2, line 58 - line 64 column 8, line 67 - column 9, line 7 column 9, line 49 - line 60 column 10, line 44 - line 53 column 11, line 19 - line 23	1-17
A	DE 100 24 007 A (VOLKSWAGENWERK AG) 18 January 2001 (2001-01-18) column 1, line 3 - line 23 column 4, line 1 - line 15	1,8-11, 16,17
A	PATENT ABSTRACTS OF JAPAN vol. 2000, no. 08, 6 October 2000 (2000-10-06) & JP 2000 146617 A (ALPINE ELECTRONICS INC), 26 May 2000 (2000-05-26) abstract	5,14
A	US 2002/067839 A1 (HEINRICH) 6 June 2002 (2002-06-06) abstract	3,15

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 6542868	B1	01-04-2003	US 2003130850 A1	10-07-2003
WO 9928145	A	10-06-1999	AU 747228 B2	09-05-2002
			AU 1647099 A	16-06-1999
			WO 9928145 A1	10-06-1999
US 6208932	B1	27-03-2001	JP 10104003 A	24-04-1998
			JP 10104004 A	24-04-1998
			DE 19743249 A1	02-04-1998
DE 10024007	A	18-01-2001	DE 10024007 A1	18-01-2001
JP 2000146617	A	26-05-2000	NONE	
US 2002067839	A1	06-06-2002	NONE	